

Amendment in the Claims

1. (currently amended) A computer-implemented method of classifying an instance comprising the steps of:

receiving an instance to be classified, the instance to be classified comprising at least one attribute and corresponding relevance value;
determining a best host for the instance to be classified; and
inserting the instance to be classified into a location relative to at least one child of the best host within a classification structure, the classification structure comprising at least one node, and the node comprising at least one attribute and corresponding relevance value.

2. (original) The method of claim 1, wherein determining the best host for the instance to be classified comprises:

processing class concept nodes of the classification structure, comprising the steps of:

receiving a class concept node of the classification structure;
calculating a delta cohesiveness measurement (ΔCM) value between the instance to be classified and the class concept node; and

storing the largest ΔCM value and the corresponding class concept node at each level of the classification structure;

determining the largest ΔCM value over all levels of the classification structure;
and

storing the class concept node corresponding to the largest ΔCM value over all levels of the classification structure.

3. (original) The method of claim 2, wherein determining the best host for the instance to be classified is performed recursively.

4. (original) The method of claim 3, wherein inserting the instance to be classified into a location relative to at least one child of the best host within a classification structure comprises:

- selecting at least one best host child node;
- calculating a Δ CM value between the instance to be classified and the at least one best host child;
- storing the Δ CM value associated with each at least one best host child;
- storing a count of the total number of the at least one best host child;
- storing a count of the total number of stored Δ CM values associated with each at least one best host child that are greater than 0.0; and
- adding the instance to be classified to the classification structure as a sibling or child of the at least one best host child, based upon the Δ CM value associated with each at least one best host child, the count of the total number of the at least one best host child, and the count of the total number of stored Δ CM values associated with each at least one best host child that are greater than 0.0.

5. (original) The method of claim 1, further comprising the step of:

- displaying the classification structure;
 - determining at least one distinguishing feature of the instance to be classified;
- and
- visually contrasting the instance to be classified vice nodes within the classification structure, based upon the value of the at least one distinguishing feature.

6. (original) The method of claim 5, wherein the at least one distinguishing feature comprises at least one of an attribute value, a context value and a relationship value.

7. The method of claim 1, wherein the method steps are carried out in real-time.

Claims 8-24 (canceled).